

DUPLICATION OF SPLEEN—A RARE CASE REPORT

V. Paramasivam¹, A. Anand², Deepti Shastri³, A. Perumal⁴

ABSTRACT

During routine dissection, duplication of the spleen was noted in one of the cadavers. However, the review of the literature revealed that this presentation is very unusual and rare. However many cases of accessory splenic tissue have been reported of different sizes and sites. Since we have encountered a rare anomaly this is being reported for its rarity.

Key words: Duplication, Spleen

INTRODUCTION

The spleen is a secondary lymphoid organ which is embryologically derived from the mesenchymal tissue of dorsal mesogastrium. During the initial phase, multiple lobules of splenic tissue develop, and all the lobules coalesce to form a single splenic entity later.

In many cases due to anomalies of development, the splenic lobules which do not coalesce remain as remnants around the main organ, within the gastrosplenic ligament, in the tail of pancreas, within the greater omentum or in extreme cases in the left spermatic cord, ovary or testis.

These accessory spleens usually do not exhibit any symptoms. However, they may mimic growths in other organs and sometimes misguide the clinicians.

CASE REPORT

During dissection of the abdomen in an approximately 60-year-old male cadaver an anomalous spleen was noted. This anomalous spleen was related to the diaphragmatic surface of the main spleen [Figure 1].

The main spleen which was bigger in size measured about 10 cm × 6 cm × 1.2 cm. The anomalous spleen which was separated from the main spleen measured about 7 cm × 5 cm × 1 cm. Both the spleens were located in the left hypochondrium.

The splenic artery from the celiac trunk was found to divide into two branches and enter the hila of both

spleens separately and two veins, one each from the hila of both spleens were found separately and united to form the splenic vein [Figure 2].

Careful inspection of surrounding tissues did not reveal any other abnormality.

DISCUSSION

Accessory splenic tissues do not cause any morbidity. They are incidental finding during invasive and noninvasive investigations and procedures performed for the abdomen. They can be mistaken for growth involving other organs located nearby. Usually the

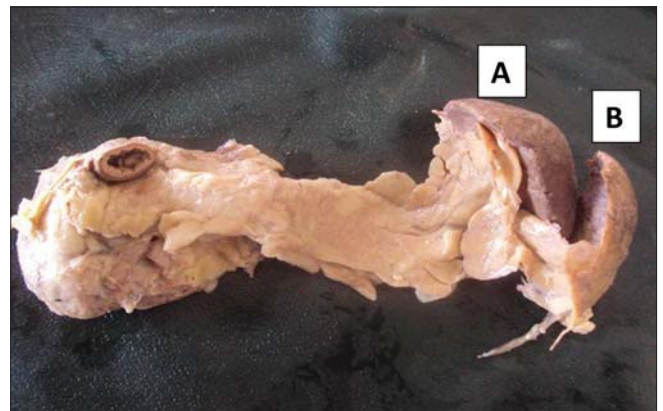


Figure 1: Two spleens (A) normal spleen, (B) anomalous spleen

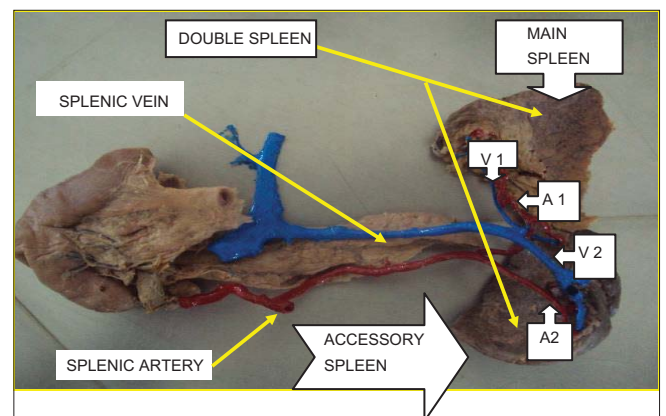


Figure 2: An artery dividing into two branches (A1 and A2) which enter the hila of the two spleens and a vein each from the hila of the two spleens (V1 and V2) joining to form the splenic vein

¹Final Year Postgraduate, ²Professor, ³Professor and Head, ⁴Lecturer, Department of Anatomy, VMKV Medical College, Salem, Tamil Nadu, India

accessory spleens are found separately from the main spleen. Their incidence is 10-30%.^[1]

The incidence of accessory splenic tissue has been reported to be around 30% in various studies conducted so far.^[2,3]

The usual site of an accessory spleen has been reported to be around the hilum of spleen and the tail of pancreas.^[4]

The duplication of spleen as found in this case, around the tail of pancreas, mimics a pancreatic endocrine tumour thereby giving a rare differential diagnosis.^[5]

In some individuals due to segmental portal hypertension, these accessory spleens might undergo infarction and cause abdominal disturbance.^[6]

In extreme cases, the accessory splenic tissue or double spleen may undergo torsion with subsequent haemorrhage, which can result in a cyst formation. When this cyst ruptures, it could be a life threatening emergency.^[6]

CONCLUSION

The reported case of an accessory splenic tissue is of nearly the same size as the normal spleen, making it difficult to differentiate between the main spleen and accessory spleen, thus giving it the appearance of duplication of spleen. The existence of double spleens is clinically important as they may result in misinterpretation in diagnostic imaging and may cause continued symptoms after therapeutic splenectomy.

REFERENCES

1. Freeman JL, Jafri SZ, Roberts JL, Mezwa DG, Shirkhoda A. CT of congenital and acquired abnormalities of the spleen. *Radiographics* 1993;13:597-610.
2. Dodds WJ, Taylor AJ, Erickson SJ, Stewart ET, Lawson TL. Radiologic imaging of splenic anomalies. *AJR Am J Roentgenol* 1990;155:805-10.
3. Gayer G, Zissin R, Apter S, Atar E, Portnoy O, Itzchak Y. CT findings in congenital anomalies of the spleen. *Br J Radiol* 2001;74:767-72.
4. Katuchova J, Baumohlova H, Harbulak P, Stofcikova M, Svajdler M, Repovsky A, *et al.* Intrapancreatic accessory spleen. A case report and review of literature. *JOP.* 2013;14:261-3.
5. Touré L, Bédard J, Sawan B, Mosimann F. Case note: Intrapancreatic accessory spleen mimicking a pancreatic endocrine tumour. *Can J Surg.* 2010;53:E1-2.
6. Azzi MC, El-Khoury EF. Infarcted accessory spleen due to segmental portal hypertension. *J Med Liban.* 2010;58:228-30.

Corresponding Author: Dr. V. Paramasivam, Postgraduate Student, Department of Anatomy, VMKU Medical College, Salem - 636 308.
E-mail: sakthiparamasivam.velu@gmail.com